

REMARKS

The Office action of June 25, 2008, has been carefully considered.

The previous rejection of Claims 15 and 17-19 under 35 USC 102(b) over Meacock, II et al has been withdrawn.

Currently, Claims 15-19 and 28 stand rejected under 35 USC 103(a) over Wehmeier et al, Claims 15 and 17-20 stand rejected under 35 USC 102(b) as anticipated by Henning et al, and Claims 15 and 17-19 stand rejected under 35 USC 102(b) as anticipated by Shea et al. Claims 21-27 and 29 have been found to be allowable over the art.

Claim 15 has now been amended to incorporate the recitations of allowable Claim 21, Claim 19 has been amended to incorporate the recitations of allowable Claim 25, Claim 26 has been placed in independent form, and Claim 28 has been amended to incorporate the recitations of allowable Claim 29. Claims 17-18, 21, 25 and 29 have been canceled.

In view of these amendments, Claims 15-16, 19-20, 22-24, and 26-28 are deemed to be allowable over the art.

In addition, a new set of process Claims 30-42 have been added to the application. Claim 30 is directed to an improvement in a process for molding cast iron in which molten cast iron is brought into contact with the inside surface of a centrifugal casting mold, the improvement comprising protecting the mold by applying to the inside surface a powder product, before brining the molten cast iron into contact with the inside surface of the mold. The powder product comprises at least one inoculating alloy and at least one strongly reducing metal that is volatile at the temperature of the molten cast iron.

According to Wehmeier et al, the powdered material is sprinkled onto the upper surface of the metal as it flows

through the trough into the mold. The powder product is not applied to the mold surface, and in the case of a volatile element such as magnesium, the powder product would immediately evaporate and would not protect the mold. Consequently, even if one did use the combination of magnesium and ferrosilicon in the process of Wehmeier et al, it would not protect the mold surface.

The powder product of Wehmeier et al is used to treat the surface of the molten cast iron, and more precisely, Wehmeier et al treats a thin outer layer of the molten cast iron which layer is brought into contact with the mold. Because this thin outer layer is brought into contact with the mold, it will cool down faster than the inner layers and the Wehmeier et al treatment is designed to prevent chilling of this outer layer.

Wehmeier et al discloses at page 1, column 1, lines 45-50, that the molten cast iron is brought into contact with the mold via this thin outer layer carrying the powder product. Extended contact between the molten cast iron and the powder product would be incompatible with the use of pure magnesium, and more generally, incompatible with any compound volatile at the temperature of the molten cast iron. Pure magnesium would certainly evaporate and no magnesium would be carried by the outer layer, and thus the powder product actually carried by the outer layer could not comprise a compound volatile at the temperature of the molten cast iron.

Finally, Wehmeier et al makes clear at page 1, column 2, lines 10-40 that the powder products are calcium, magnesium and aluminum alloys.

Henning et al discloses a combination of unalloyed magnesium metal with finely sized ferrosilicon oxide. This blended mixture is placed in a metal container and plunged


into the molten cast iron. The object of this technique is to dissolve magnesium into the cast iron in order to improve nodulization and there is no disclosure or suggestion of coating a mold surface with the composition before casting.

Shea et al discloses transportation of a product comprising magnesium and a metallic compound. The purpose of this composition is to inoculate molten cast iron in a mold to produce nodular iron castings. Shea et al also does not disclose or suggest coating a mold surface with the composition.

Accordingly, Claims 30-42 are patentable over Wehmeier et al, Henning et al and Shea et al.

In view of the foregoing amendments and remarks, Applicant submits that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,



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1) CREDIT CARD ORIGINALLY FAILED FOR \$570 ON 9/29,
By MAIL ROOM / LOW TRACTOR.
2) My attempt on 10/1/08 For \$570 worked.
Jon King
P.T.
Office